

# Notice of Allowability

Application No.

10/550,519

Examiner

Nam T. Nguyen

Applicant(s)

EZAKI ET AL.

Art Unit

2824

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a Response to Election filed on 6/22/07.
2. ☒ The allowed claim(s) is/are 1-50.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 12/30/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other EAST search.

  
SON DINH  
PRIMARY PATENT EXAMINER

**DETAILED ACTION**

1. The response to restriction requirement dated on 6/22/07 has been entered.
2. The Election /Restriction office action dated on 5/16/07 has been withdrawn.
3. Claims 1-50 are pending in the application.

***REASON FOR ALLOWANCE***

4. Claims 1-50 are allowed. Claims 1, 21 and 49 are independent claims.

The following is an examiner's statement of reasons for allowance:

The prior art of record fail to teach or suggest a magnetic memory cell, in combination with other limitations, wherein a toroidal magnetic layer disposed between the first and second stacked bodies so that the direction along the stack layer surface is set as an axial direction, and constructed so as to be penetrated by a plurality of conductors along the axial direction as recited in the independent claim 1; or

A toroidal magnetic layer disposed between the first and second stacked bodies so that the direction along the stack layer surface is set as an axial direction, and constructed so as to be penetrated by the first and second write lines along the axis direction as recited in the independent claim 21; or

A method of steps forming a toroidal magnetic layer by providing a top magnetic layer so as to surround the stack layer pattern via a third insulating film; forming a first stacked body by providing a first stack layer part in a position corresponding to the second stacked body over the toroidal magnetic layer and forming a magnetic memory

cell having the first and second stacked bodies; and electrically connecting the first stacked body and the first rectifying device as recited in the independent claim 49.

### ***Conclusion***

5. The following prior art, which is considered pertinent to applicant's disclosure although not relied upon, includes:

Asao (US. Pat. No. 6,882,563) discloses a magnetic memory device and method for manufacturing similar to that of the present application, but fail to disclose the claimed limitations as described above.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam T. Nguyen whose telephone number is (571) 272-1878. The examiner can normally be reached on 8 am to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nam T Nguyen  
Examiner  
Art Unit 2824

7/25/07

  
**SON DINH**  
**PRIMARY PATENT EXAMINER**